

Fig. 1

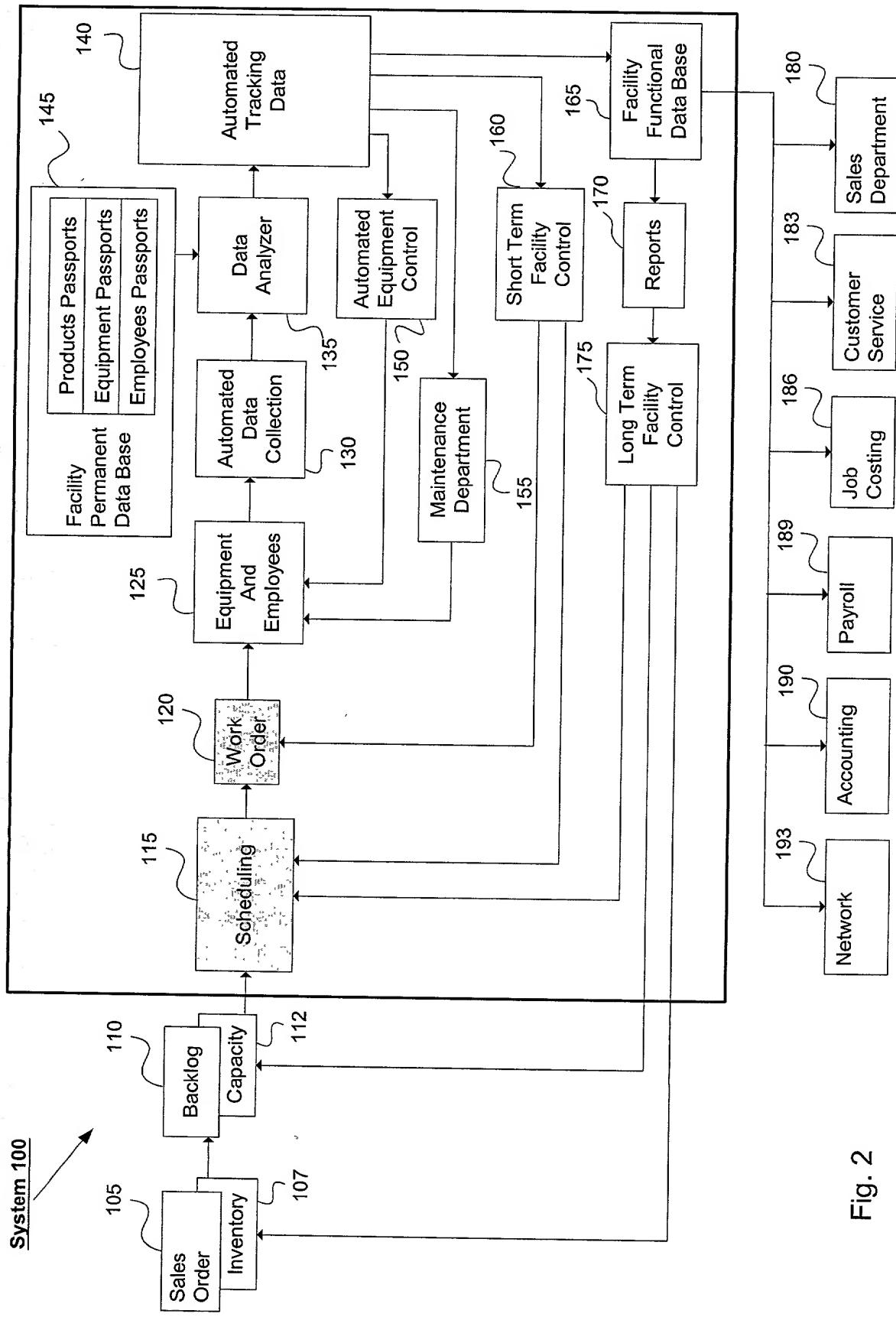


Fig. 2

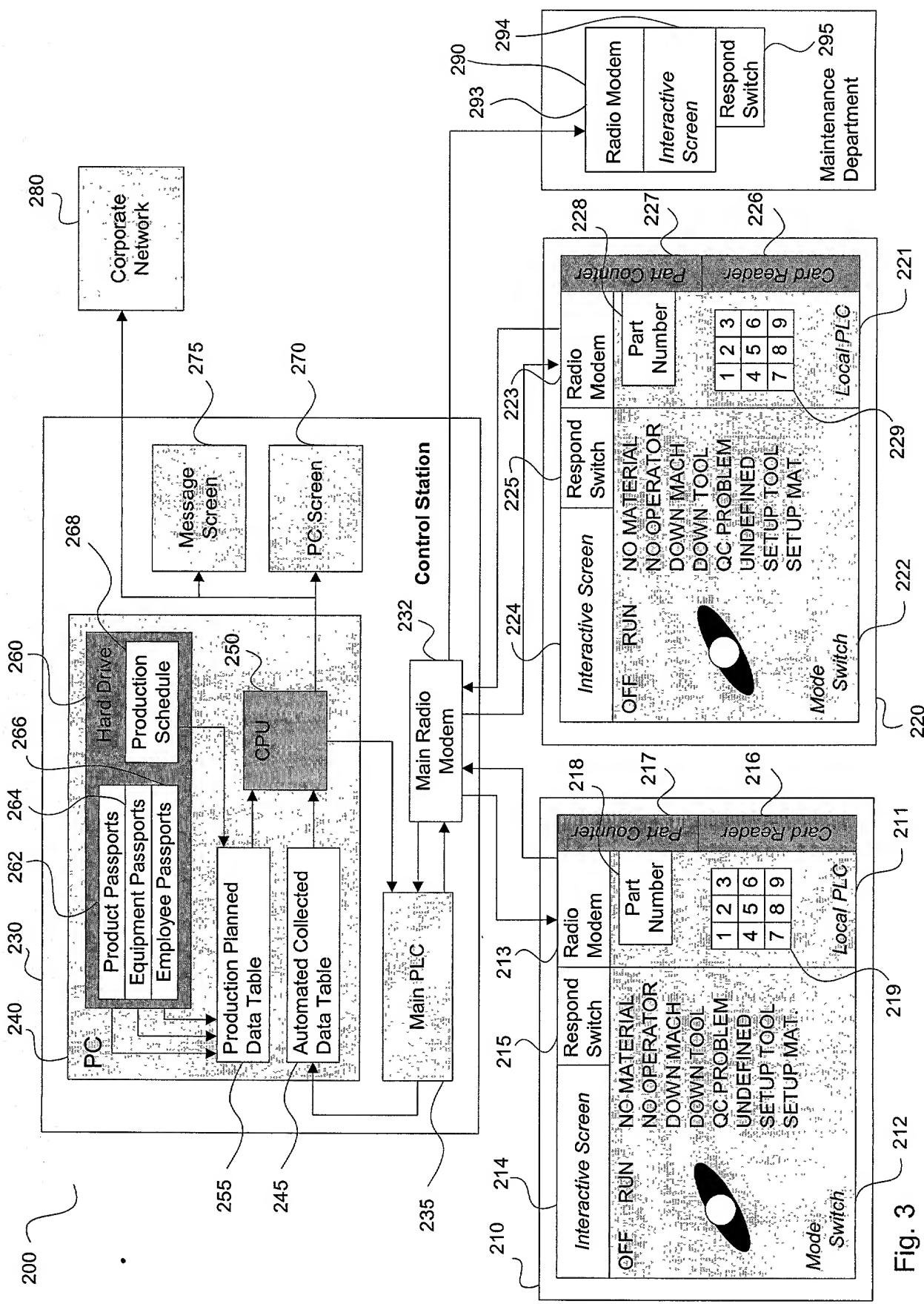


Fig. 3 212

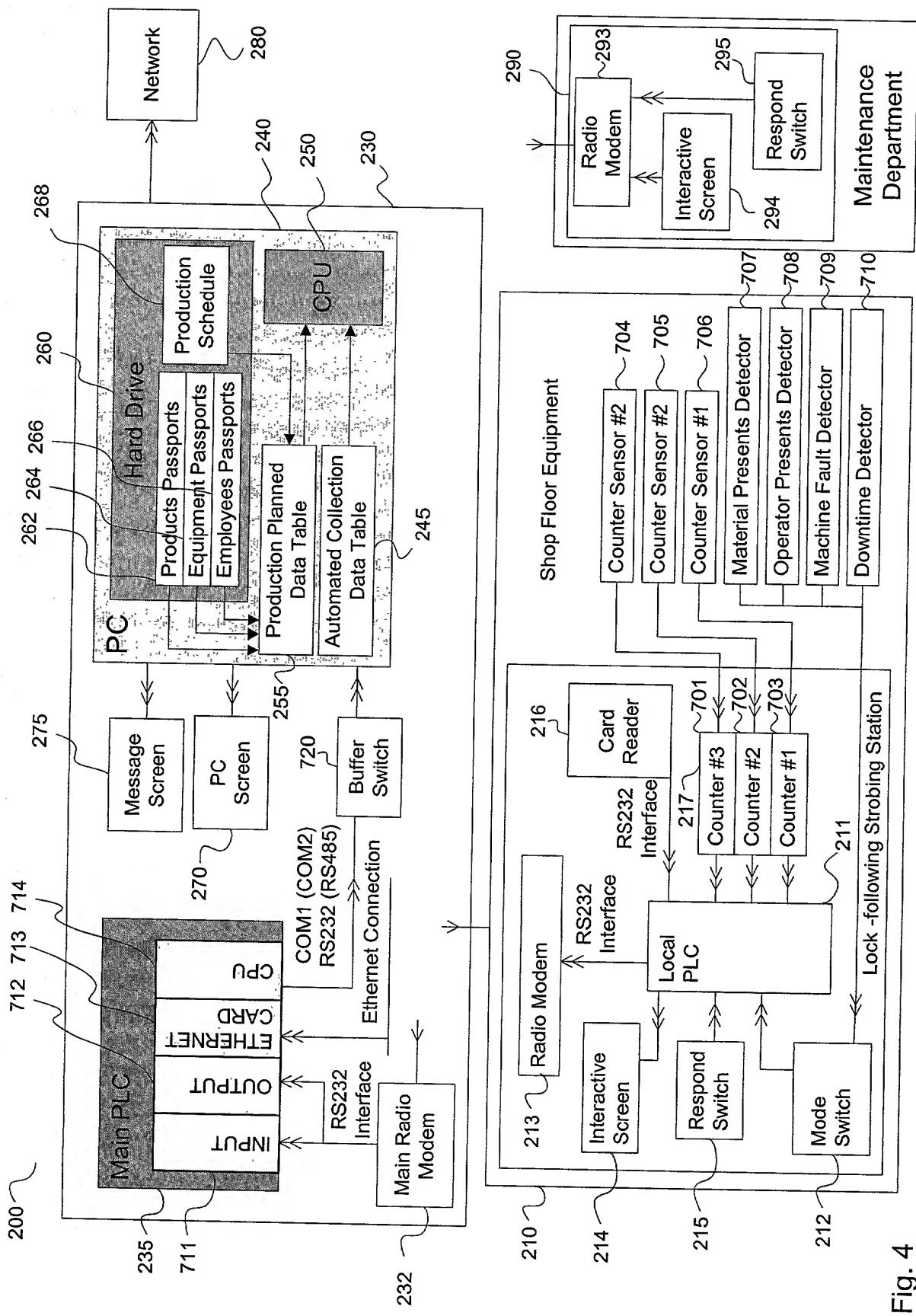


Fig. 4

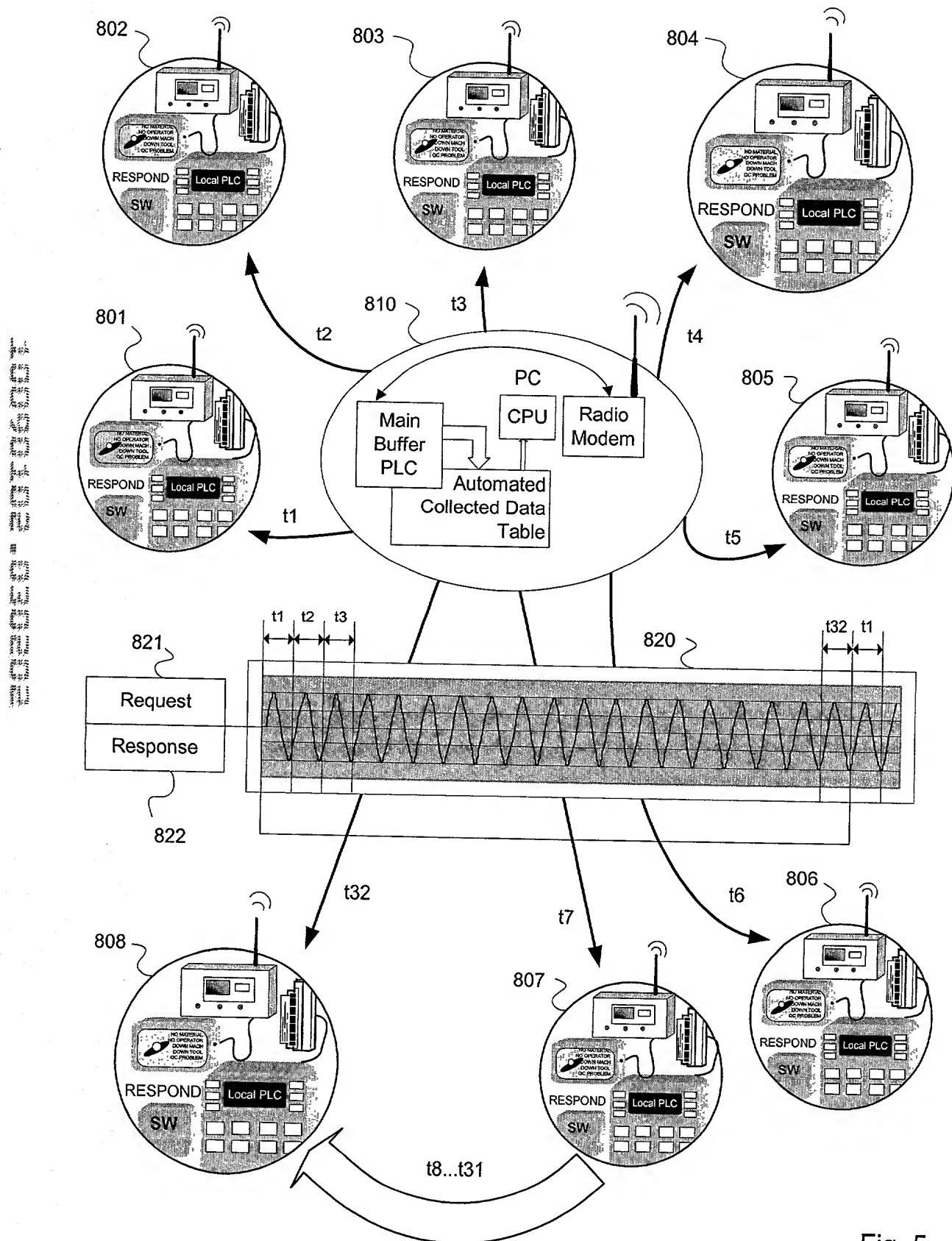


Fig. 5

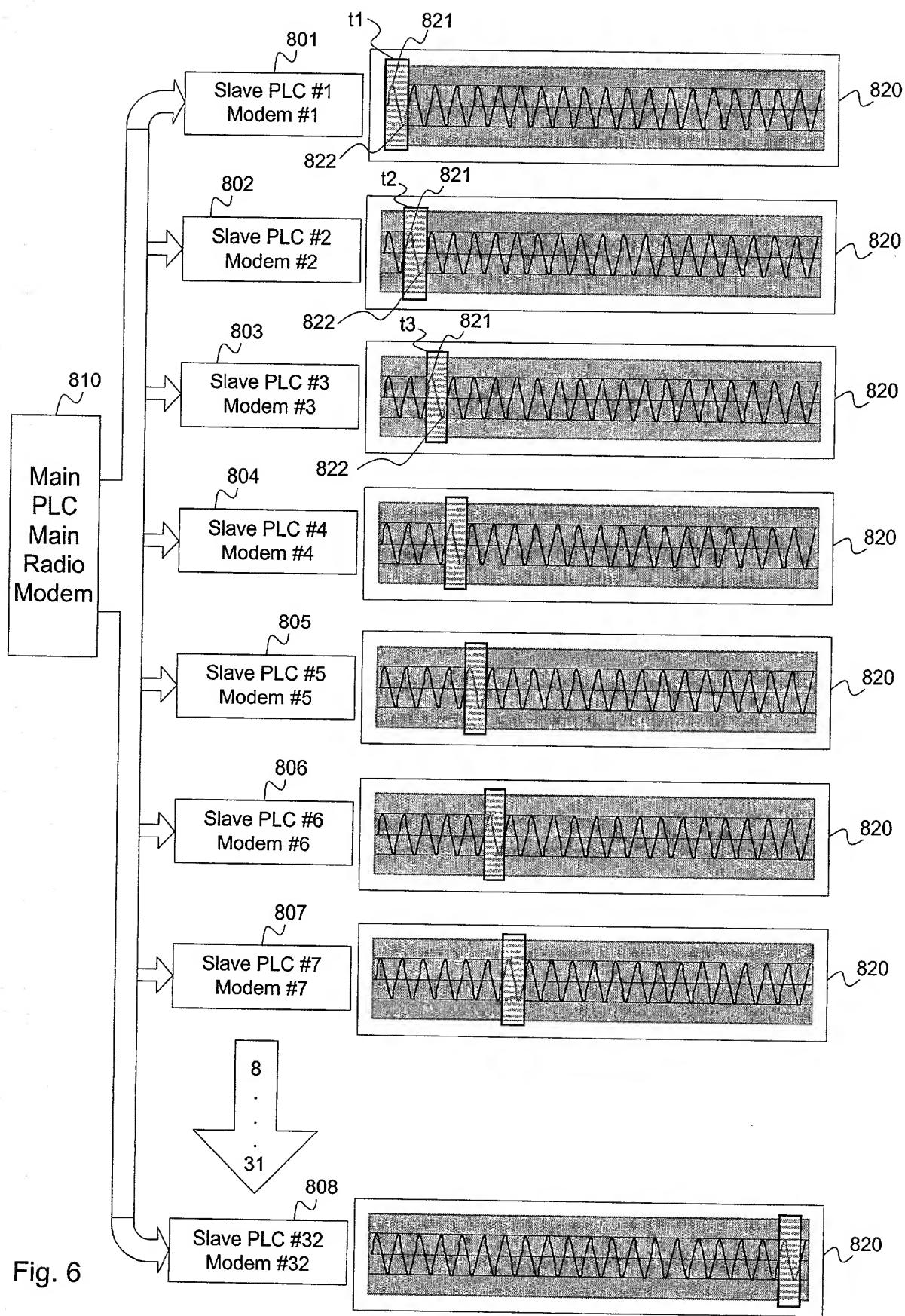


Fig. 6

CT Current Time	Job Order ID	Part ID	Operation ID	Work Post (Equipment) ID	Operator	Parts Produced	Schedule Shift time	Production Run time	No Material	Machine failure	Tool failure	QC Problem	Undefined	Tool/Machine	Material	Set-up time	PM Time	Dead time	Technician ID	Personal Equipment Repair Time	Set-up time
831																					
832																					
833																					
834																					
835																					
836																					
837																					
838																					
839																					
840																					
841																					
842																					
843																					
844																					

Fig. 7

ABC Corporation Employee Database						
Plant	Employee	Period	Sort	Edit	New	Conv
ID	Name	Division	Position	Hourly Rate	Date of Hire	Seniority
20356	Bob G Smith	Machining	Operator	7.25	10/23/99	3
20357	Tom Parker	Machining	Line Lieder	10.50	03/04/98	5
20358	Jim Faqle	Machining	Onerator	8.50	05/06/98	4
20359	Bill Carter	Machining	Operator	6.00	10/01/01	1

Details

ID	<input type="text" value="20358"/>	Hourly Rate	<input type="text" value="8.50"/>
Name	<input type="text" value="Jim Faqle"/>	Date of Hire	<input type="text" value="05/06/98"/>
Division	<input type="text" value="Machining"/>	Seniority	<input type="text" value="4"/>
Position	<input type="text" value="Onerator"/>		
Description	<input type="text" value="Needs close supervision"/>		

[OK](#) [Cancel](#)



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Fig

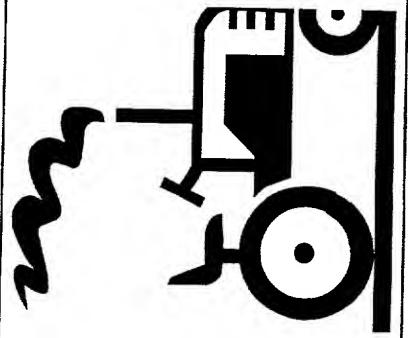
ABC Corporation							Equipment Passbooks					
Plant	Equipment	Period	Sort				Edit	New	Conv	Delete	Print	
310												
ID	Name	Number	Division	Operation	Available Time:	Depreciation	Date of Complexity	Post	New			
90356	Lathe	#1	Machining	OD	470	7.25	10/23/79	3	2			
90357	CNC Mill	#2	Machining	Base	450	10.50	03/04/68	5	321			
90358	CNC Mill	#6	Machining	Inside	450	8.50	05/06/98	4	322			
90359	Drill Press	#12	Machining	Holes	480	6.00	10/01/66	1	323			
324												
Details												
ID	90358	Depreciation	8.50									
Name	CNC Mill	Date of New	05/06/98									
Division	Machining	Complexity	4									
Operation	Inside	Post Number	8									
Available Time	4.50											
Description	VMC Haas 20x30x25											
 <div style="display: flex; justify-content: space-between; align-items: center;"> OK Cancel </div>												

Fig. 9

310

ABC Corporation									
Plant	Part Number	Period	Sort	Edit	New	Conv	Delete	Print	
ID	Name	Number	Division	#Operations	Production Time	Labor Cost	Assemble Number	Number	
331	000001	Piston	EN203	Machining#1	5	120	9.20	EN001	↑
332	000002	Cylinder	EN406	Machining#1	4	050	4.30	EN001	
333	000003	Arm	DX123	Machining#2	4	044	4.35	DX005	
334	000004	Shaft	DX432	Machining#2	6	102	8.70	DX005	↓

Details

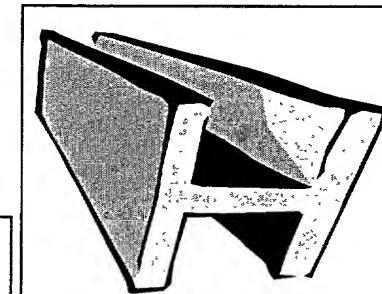
ID	000003	Production Time	044
Name	Arm	Labor Cost	4.35
Division	Machining#2	Assemble Number	DX005
#Operations	4	Operations Enter	
Description	16" steel Arm	OK	
		Cancel	

Fig. 10

ABC Corporation							Parts			Operations			Costs		
Part:	DX005 - Arm			Edit		New	Conv	Delete	Print						
ID	Name	Number	Division	Equipment		Production Time	Labor Cost	Post							
341	0001	Cut off	010	Ship.- Receiv.	Saw #1	5	0.62	no							
342	0002	Milling	020	Machining #2	Vert. Mill #4	23	3.45	3							
343	0003	Drilling	030	Machining #2	Drill Press #2	12	1.70	5							
344	0004	Deburring	040	Machining #2	Table #5	4	0.58	9							

Details

ID	0003	Equipment	Drill Press #2
Name	Drilling	Production Time	12
Number	030	Labor Cost	1.70
Division	Machining #2	Post Number	5
Description	Drill 28 holes Dia. 0.38"		



Cancel

OK

Fig. 11

Table Format Schedule 350

351 ~ FIRST SHIFT

04/24/01 04/25/01 04/26/01 04/27/01 04/28/01 04/24/28

Day	Type	Monday			Tuesday			Wednesday			Thursday			Friday			TOTAL PER WEEK		
		Quan.	Type	Quan.	Type	Quan.	Type	Quan.	Type	Quan.	Type	Quan.	Type	Quan.	Type	Quan.	Type		
361	Press Line	1250	PR33	1250	PR33	1250	PR33	1250	PR33	1250	PR33	1250	PR33	1250	PR33	1250	PR33		
362	Weld Line	1250	XE42	1250	XE42	1250	XE42	1250	XE42	1250	XE42	1250	XE42	1250	XE42	1250	XE42		
363	Trim Line	1250	PL2	1250	PL2	1250	PL2	1250	PL2	1250	PL2	1250	PL2	1250	PL2	1250	PL2		
364	Paint Line	1250	F6U3	1250	F6P2	1250	F2Y7	1250	R1B1	1250	R1B1	1250	B6W2	1250	B6W2	1250	B6W2		
365	Packaging Line	1250	F6U3	1250	F6P2	1250	F2Y7	1250	R1B1	1250	R1B1	1250	B6W2	1250	B6W2	1250	B6W2		

352 ~ SECOND SHIFT

04/24/01 04/25/01 04/26/01 04/27/01 04/28/01 1/24 1/28

Day	Monday			Tuesday			Wednesday			Thursday			Friday			TOTAL PER WEEK		
	Type	Quan.	Type	Type	Quan.	Type	Type	Quan.	Type	Type	Quan.	Type	Type	Quan.	Type	Type	Quan.	
Press Line	PR33	1250	PR33	1250	PR33	1250	PR33	1250	PR33	1250	PR33	1250	PR33	1250	PR33	1250	PR33	
Weld Line	XE42	1250	XE42	1250	XE42	1250	XE42	1250	XE42	1250	XE42	1250	XE42	1250	XE42	1250	XE42	
Trim Line	PL2	1250	PL2	1250	PL2	1250	PL2	1250	PL2	1250	PL2	1250	PL2	1250	PL2	1250	PL2	
Paint Line	F6U3	1250	F6P2	1250	F2Y7	1250	R1B1	1250	B6W2	1250	B6W2	1250	B6W2	1250	B6W2	1250	B6W2	
Packaging Line	F6U3	1250	F6P2	1250	F2Y7	1250	R1B1	1250	B6W2	1250	B6W2	1250	B6W2	1250	B6W2	1250	B6W2	

ABC Enterprises Scheduling



Fig. 12

ABC Enterprises Product Flow Tracking

Product Flow Tracking

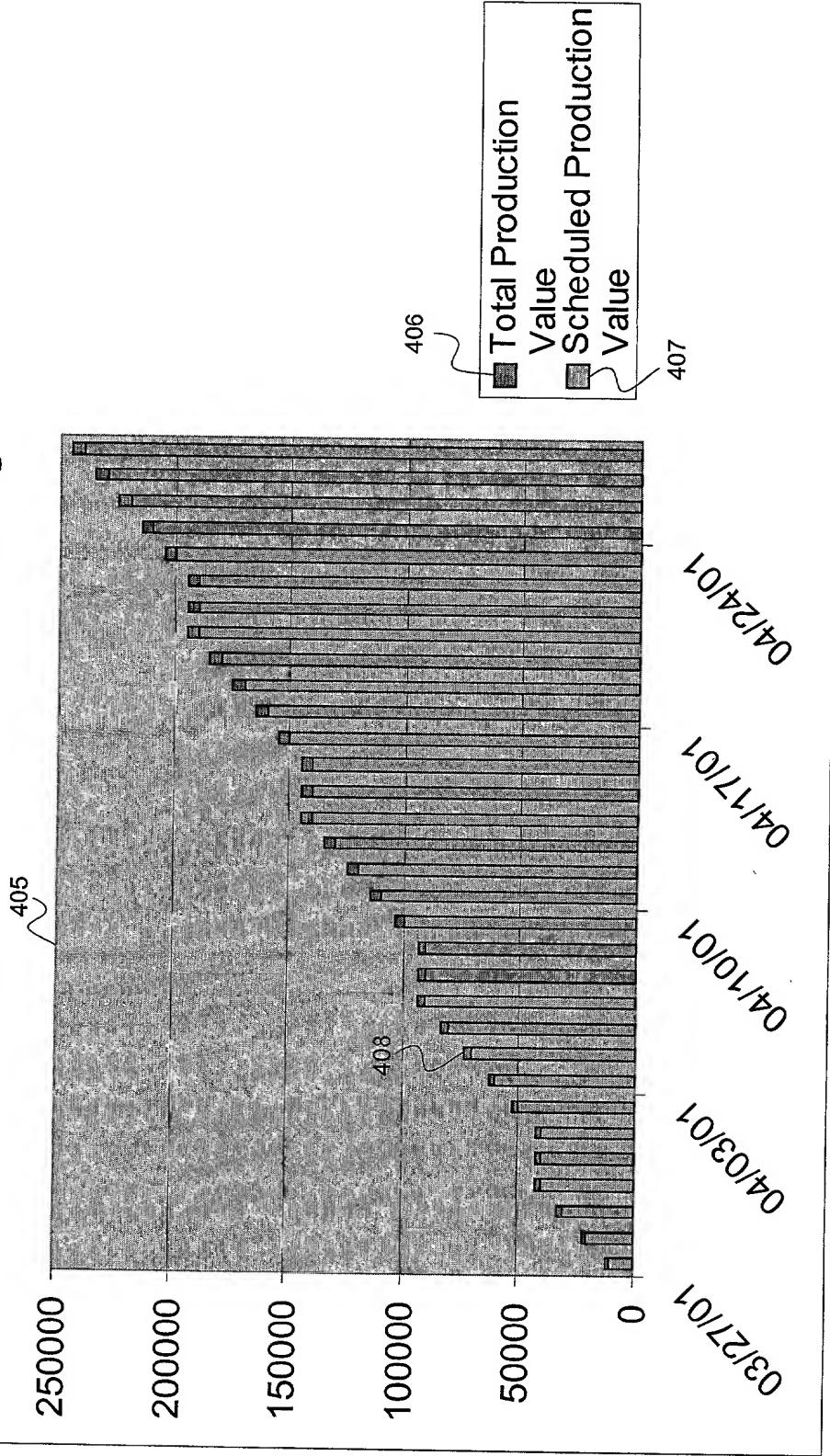


Fig. 13a

ABC Enterprises Product Flow Tracking

date	day	daily production value	total production value	scheduled production value	percent manufactured
03/27/01	tue	8500	8500	10000	85%
03/28/01	wed	10000	18500	20000	93%
03/29/01	thur	9100	27600	30000	92%
03/30/01	fri	10000	37600	40000	94%
03/31/01	sat	0	37600	40000	94%
04/01/01	sun	0	37600	40000	94%
04/02/01	mon	10000	47600	50000	95%
04/03/01	tue	10000	57600	60000	96%
04/04/01	wed	9000	66600	70000	95%
04/05/01	thur	10000	76600	80000	96%
04/06/01	fri	10000	86600	90000	96%
04/07/01	sat	0	86600	90000	96%
04/08/01	sun	0	86600	90000	96%
04/09/01	mon	10000	96600	100000	97%
04/10/01	tue	9100	105700	110000	96%
04/11/01	wed	10000	115700	120000	96%
04/12/01	thur	9510	125210	130000	96%
04/13/01	fri	10000	135210	140000	97%
04/14/01	sat	0	135210	140000	97%
04/15/01	sun	0	135210	140000	97%
04/16/01	mon	10000	145210	150000	97%
04/17/01	tue	10000	155210	160000	97%
04/18/01	wed	9800	165010	170000	97%
04/19/01	thur	10000	175010	180000	97%
04/20/01	fri	10000	185010	190000	97%
04/21/01	sat	0	185010	190000	97%
04/22/01	sun	0	185010	190000	97%
04/23/01	mon	10000	195010	200000	98%
04/24/01	tue	9850	204860	210000	98%
04/25/01	wed	9853	214713	220000	98%
04/26/01	thur	10000	224713	230000	98%
04/27/01	fri	10000	234713	240000	98%

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418 Fig. 13b

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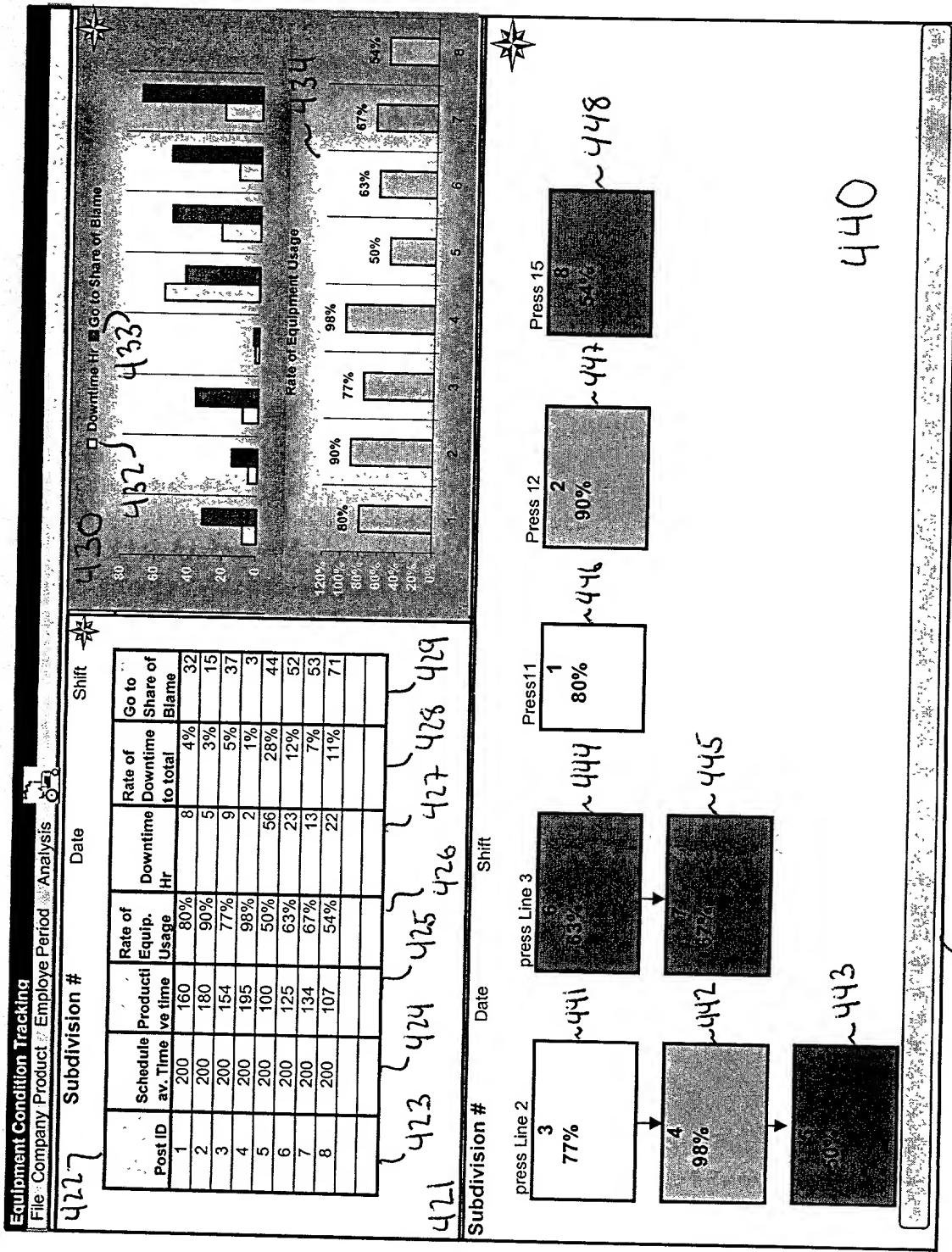


Fig. 14

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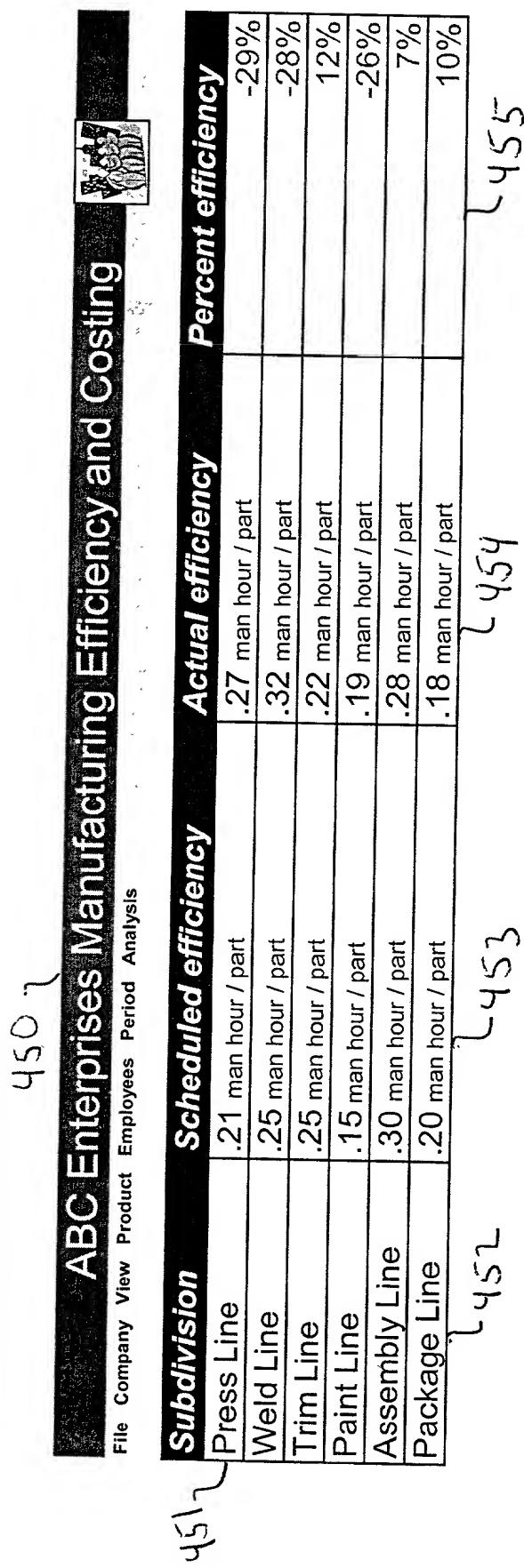


Fig. 15a

ABC Enterprises Manufacturing Efficiency and Costing

File Company View Product Employees Period Analysis

Subdivision

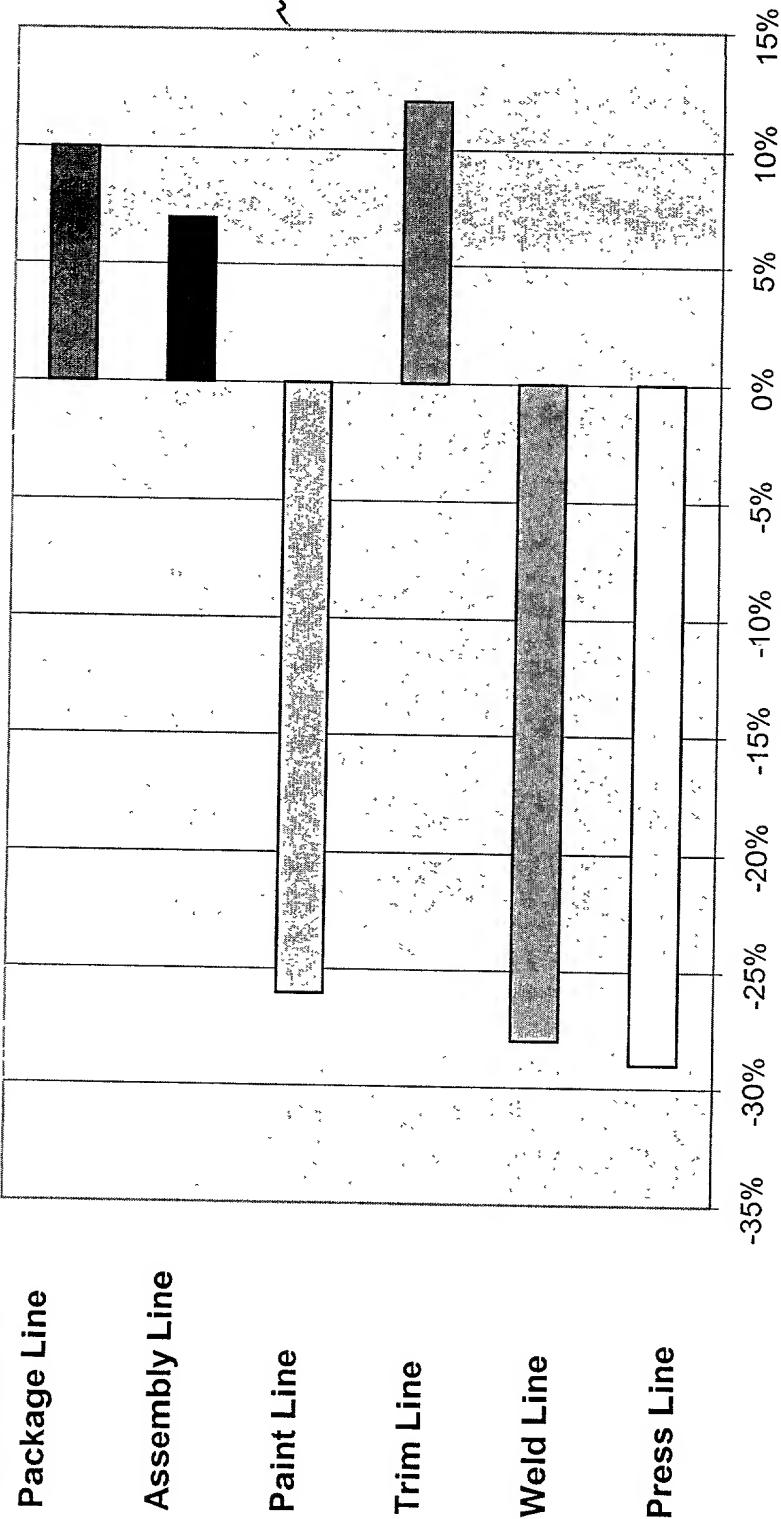


Fig. 15.b

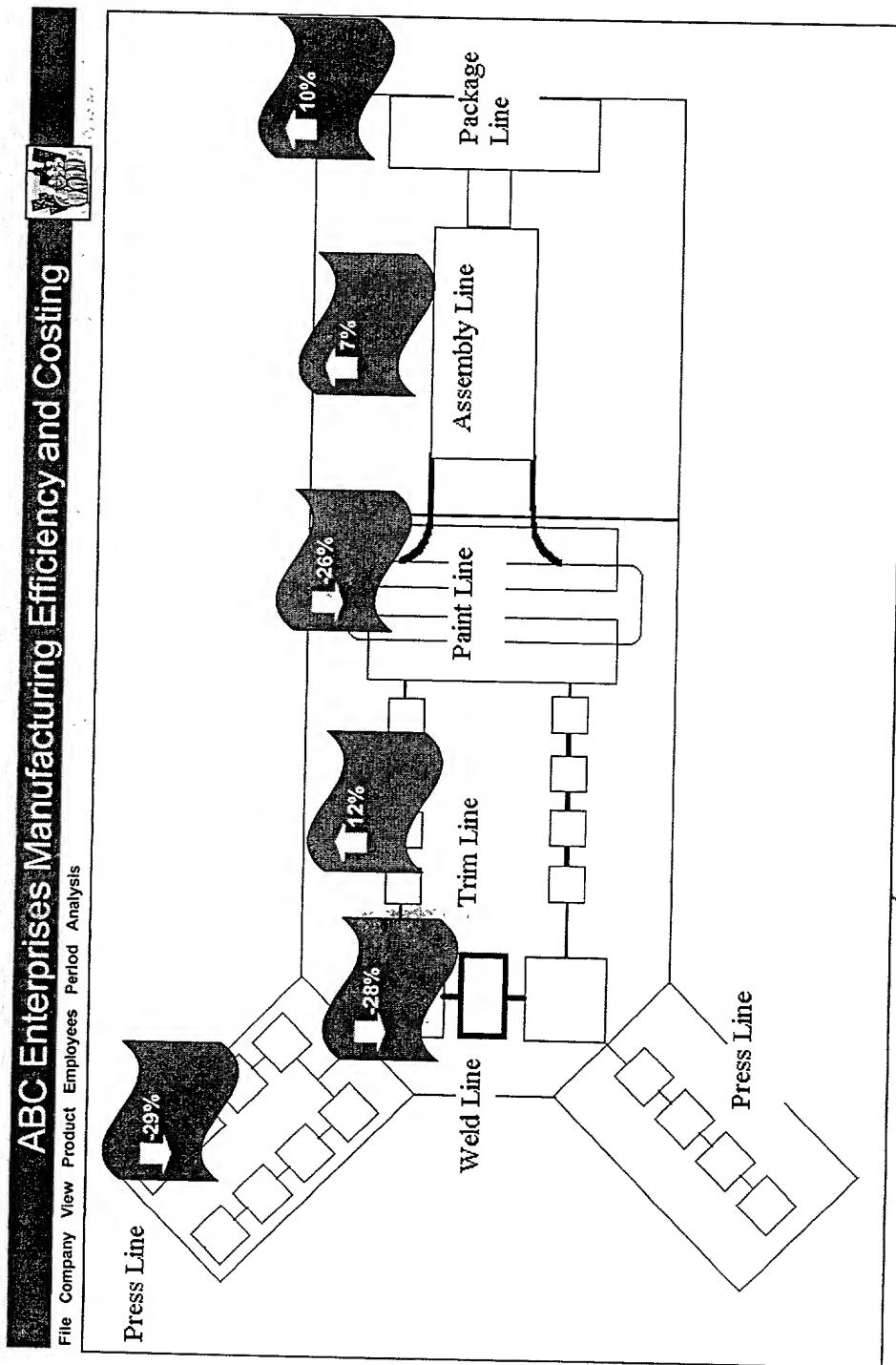


Fig. 15c

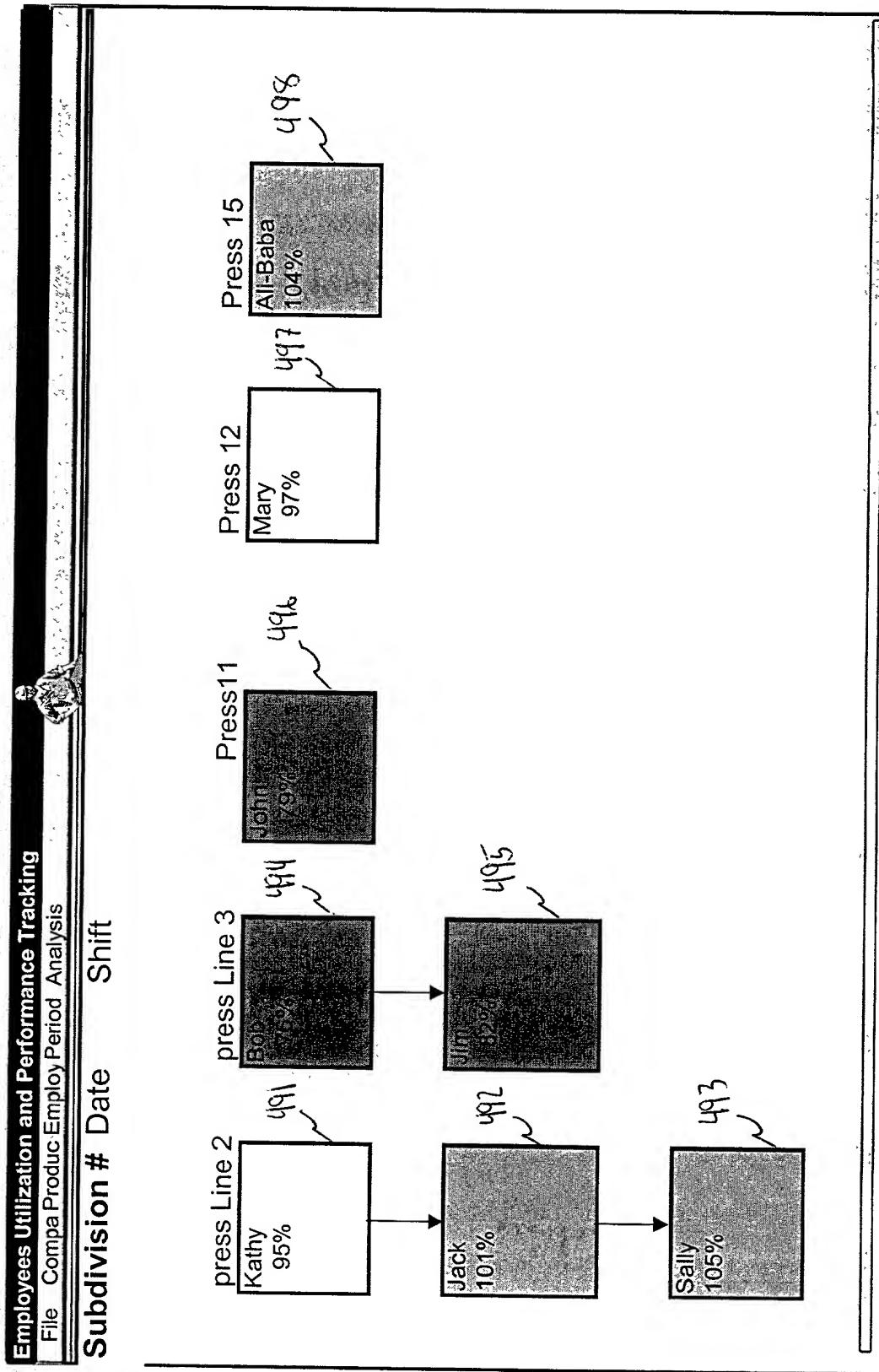
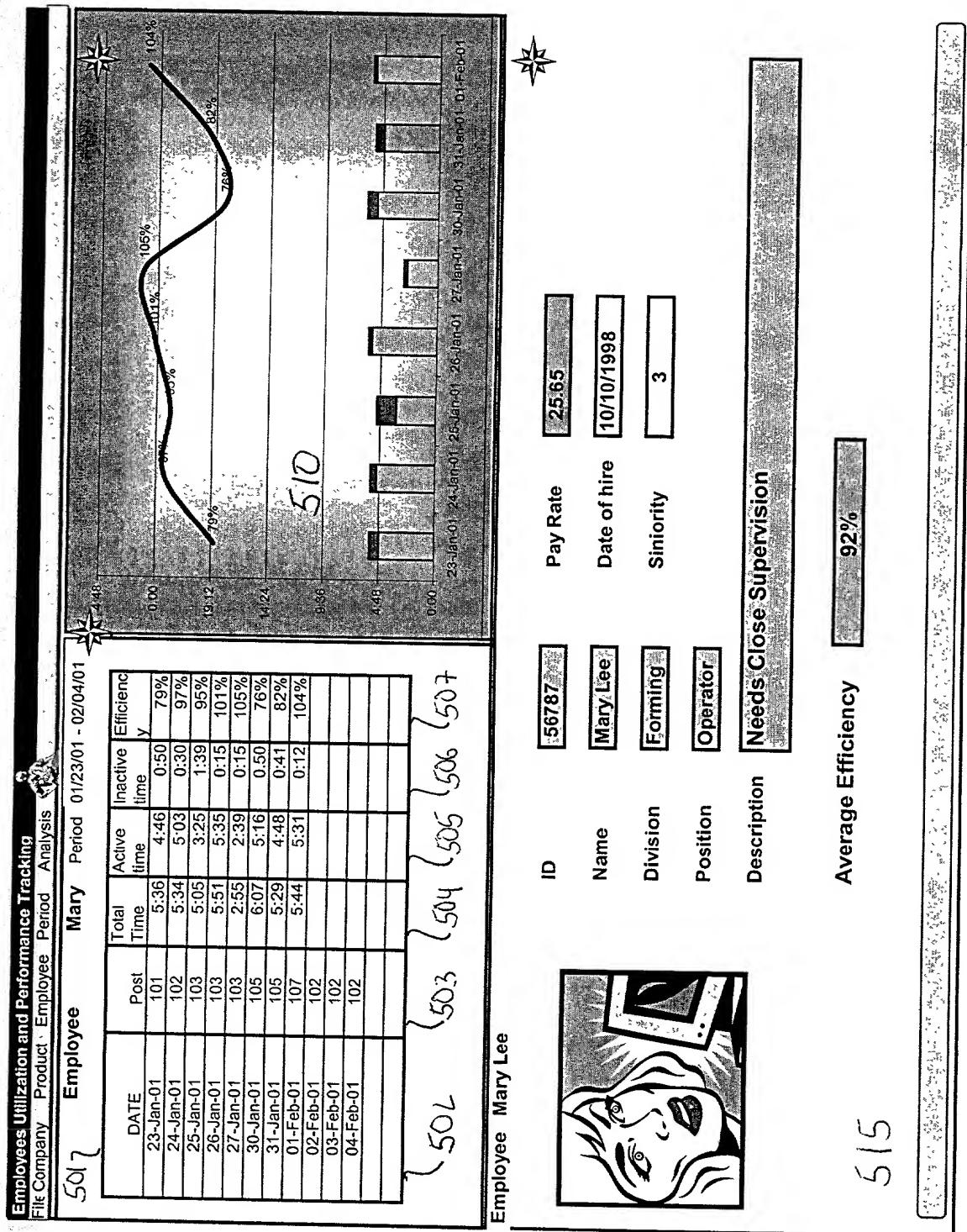
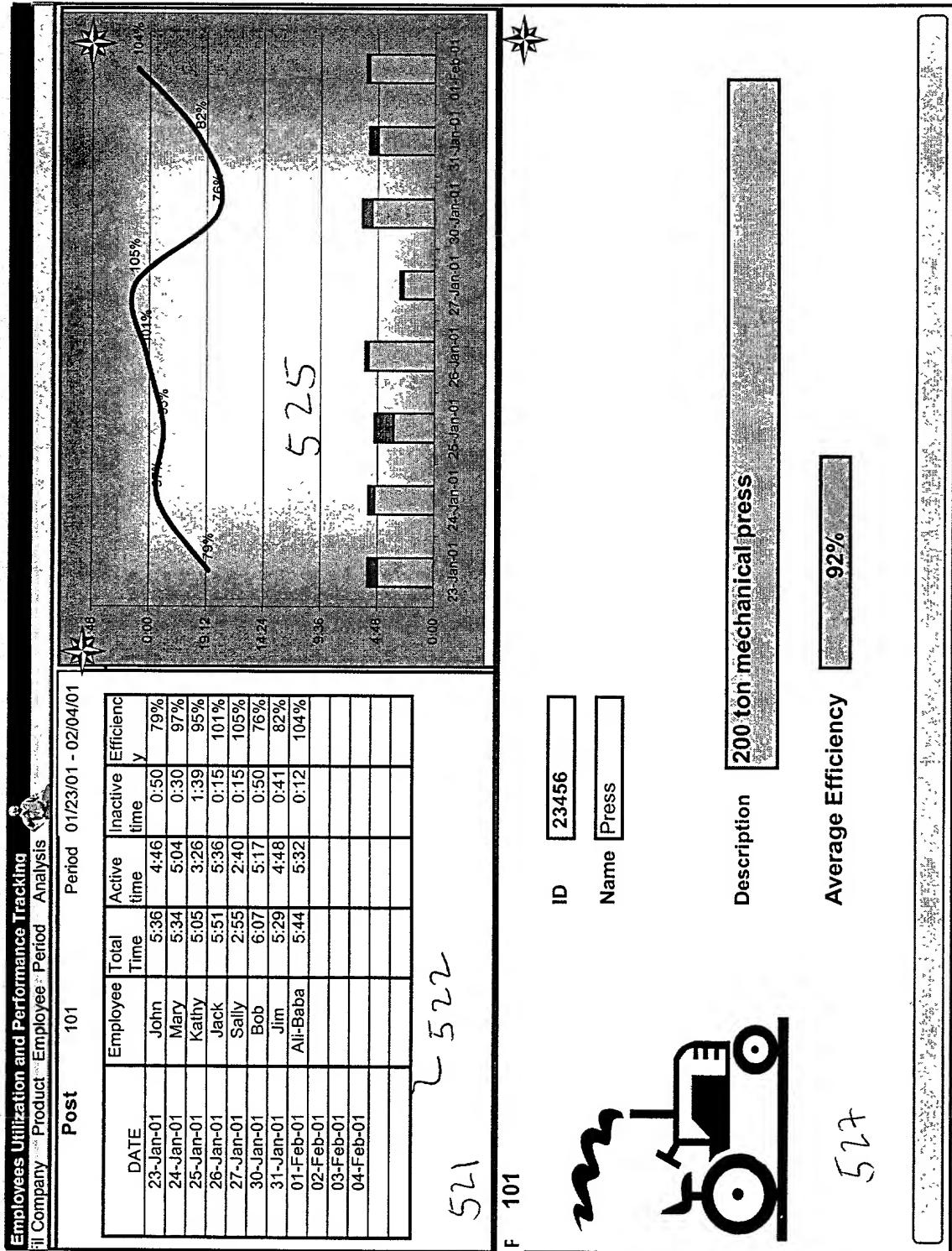


Fig. 16 b





		Down Time			Repair Time			Reaction Time		
Post ID	Available Time	min	%	min	%	min	%	min	%	
1	480	140	29%	112	23%	28	6%			
2	480	53	11%	38	8%	15	3%			
3	480	20	4%	18	4%	2	0%			
4	480	48	10%	41	9%	7	1%			
5	480	6	1%	5	1%	1	0%			
6	480	128	27%	101	21%	27	6%			
7	480	128	27%	101	21%	27	6%			
8	480	12	3%	10	2%	2	0%			
9	480	59	12%	44	9%	15	3%			
10	480	140	29%	112	23%	28	6%			
11	480	53	11%	38	8%	15	3%			
12	480	20	4%	18	4%	2	0%			
13	480	48	10%	41	9%	7	1%			
14	480	6	1%	5	1%	1	0%			
15	480	128	27%	101	21%	27	6%			
16	480	128	27%	101	21%	27	6%			
17	480	12	3%	10	2%	2	0%			
18	480	59	12%	44	9%	15	3%			
19	480	48	10%	41	9%	7	1%			

Fig 17a

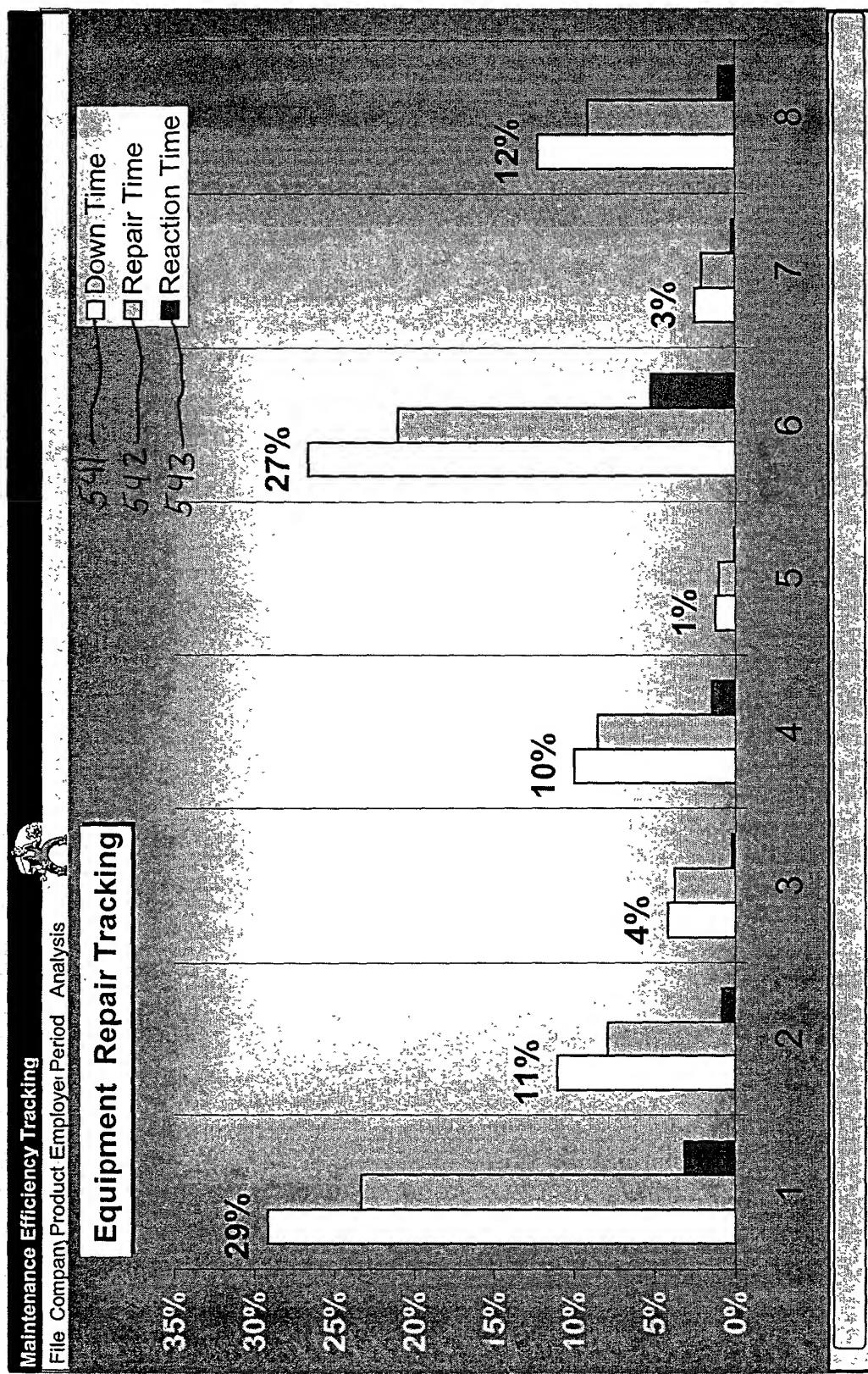


Fig. 17b

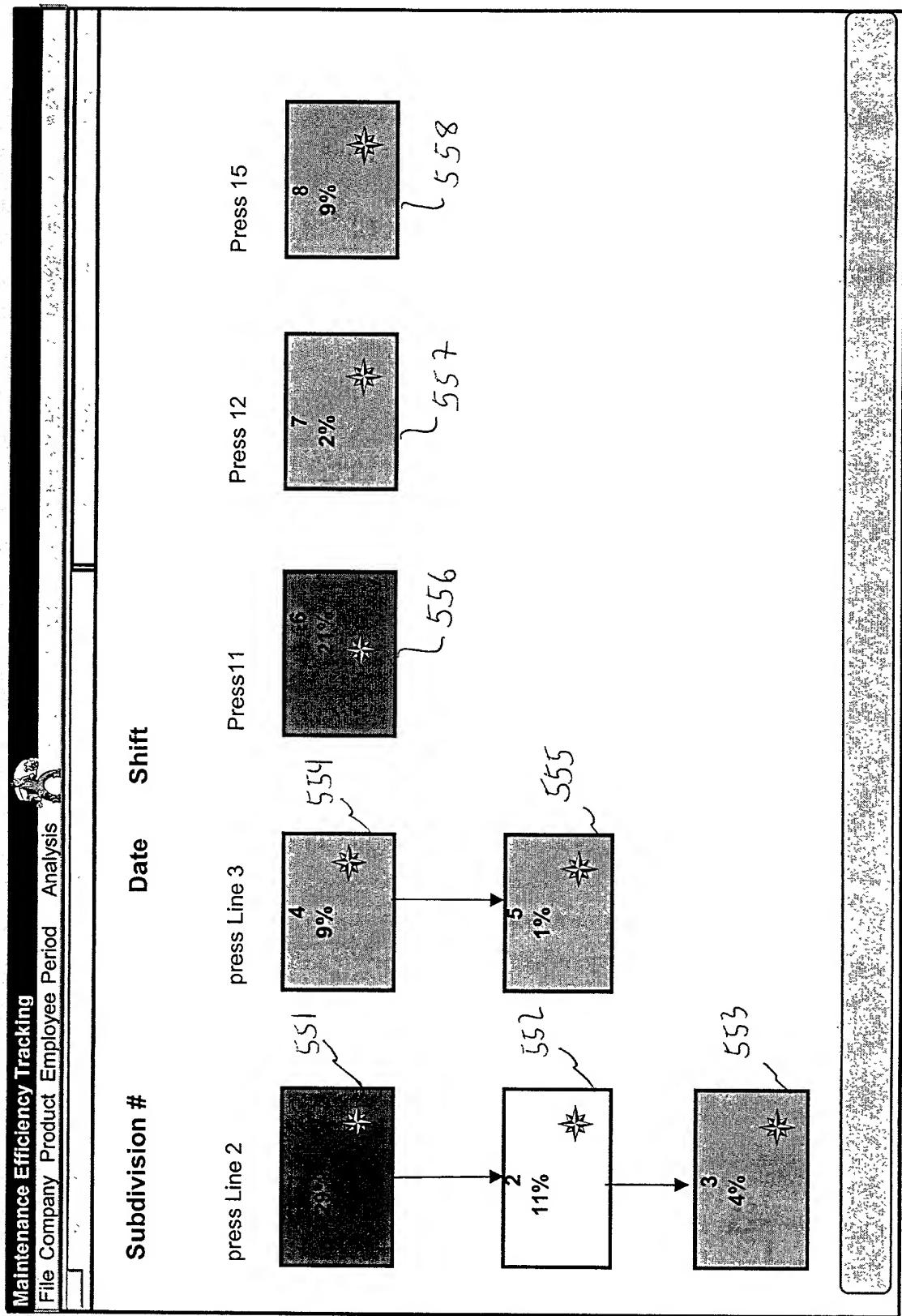


Fig 17c

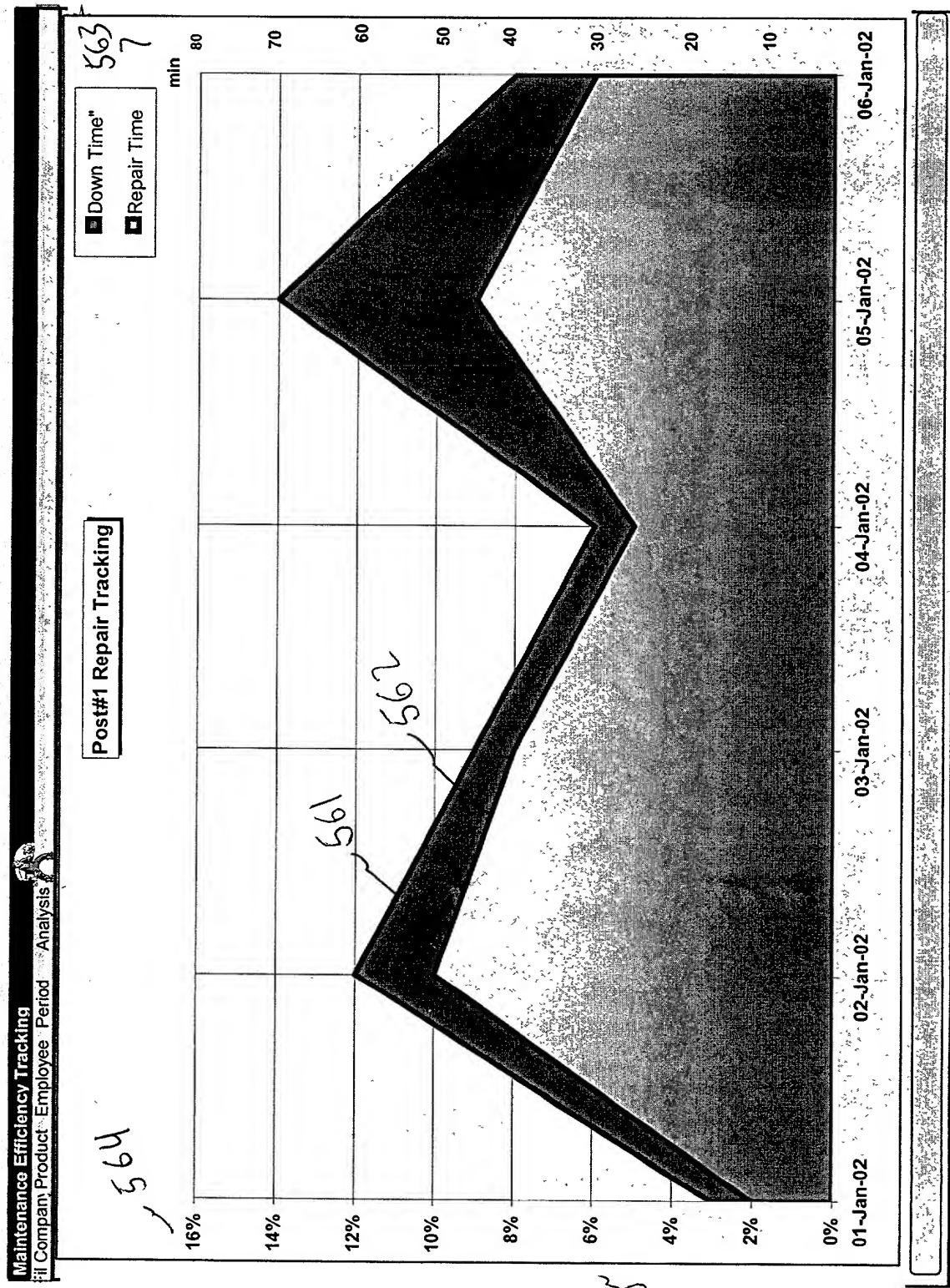


Fig. 17d

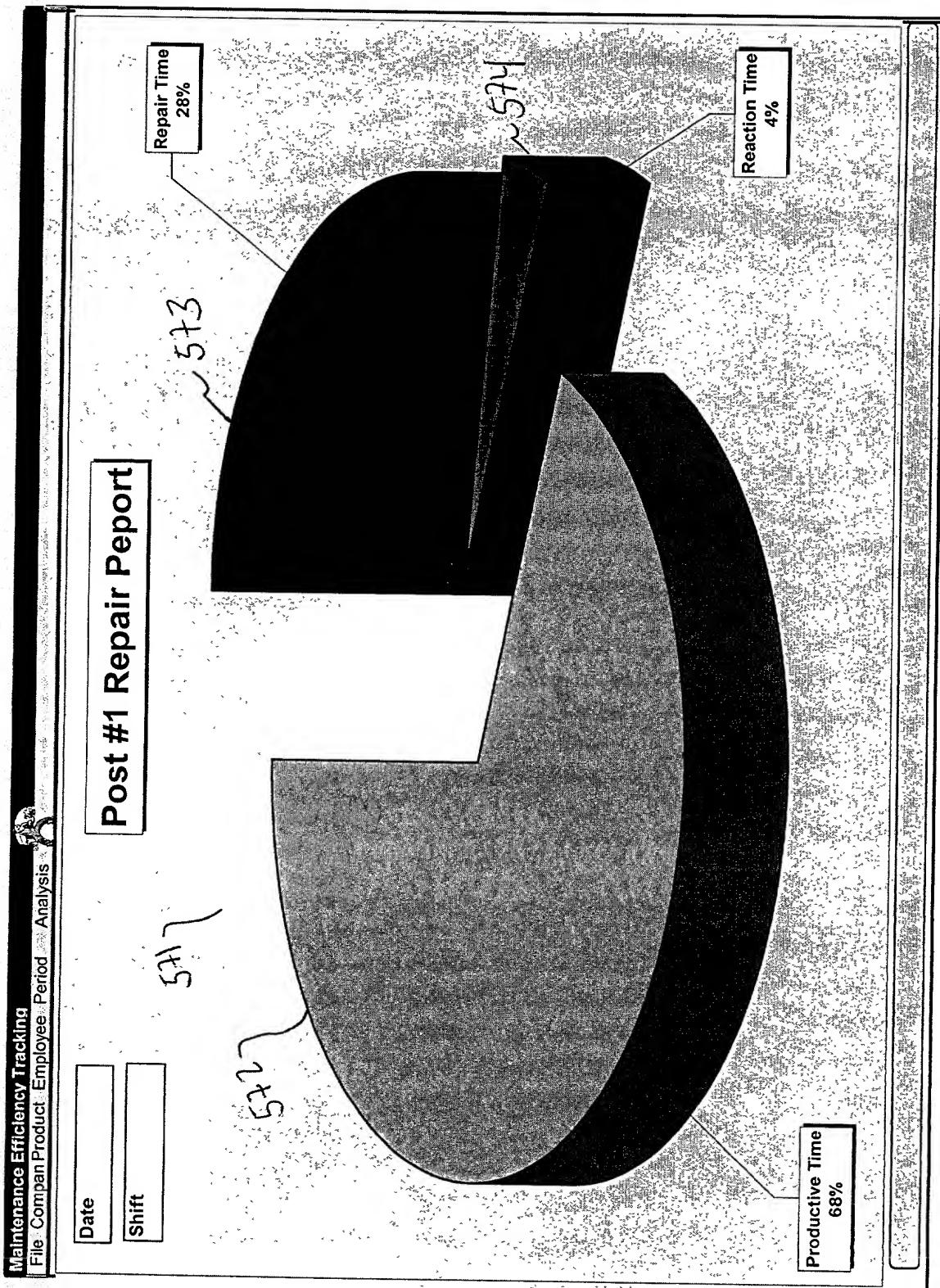


Fig. 17c

File Company Product Employee Period Analysis

Share of Blame

Post ID	Schedule av. Time	Subdivision #	Date	Shift													
				PT Productio n	Run Time	DOT No	DMT Operato r	Machine Material	DET Failure	DTT Tool Failure	DQT QC Problem	DUT Undefin ed	STT Tool Machin e	SMT Material	PMT Time	PM Time	Technicia n ID
1	200	180	35%	10%	14%	19%	0%	0%	0%	0%	0%	5%	6%	0%	11%		
2	200	165	0%	0%	72%	0%	14%	0%	0%	0%	0%	5%	8%	0%	1%		
3	200	100	1%	21%	0%	0%	0%	0%	0%	0%	0%	12%	9%	0%	57%		
4	200	196	12%	0%	75%	0%	0%	0%	0%	0%	0%	0%	12%	0%	1%		
5	200	125	15%	10%	0%	36%	17%	0%	0%	0%	0%	4%	0%	0%	18%		
6	200	177	3%	25%	14%	0%	0%	0%	45%	0%	0%	5%	5%	0%	3%		
7	200	180	35%	10%	14%	19%	0%	0%	0%	0%	0%	5%	6%	0%	11%		
8	200	165	0%	0%	72%	0%	14%	0%	0%	0%	0%	5%	8%	0%	1%		
9	200	100	1%	21%	0%	0%	0%	0%	0%	0%	0%	12%	9%	0%	57%		
10	200	196	12%	0%	75%	0%	0%	0%	0%	0%	0%	0%	12%	0%	1%		
11	200	125	15%	10%	0%	36%	17%	0%	0%	0%	0%	4%	0%	0%	18%		
12	200	177	3%	25%	14%	0%	0%	0%	45%	0%	0%	5%	5%	0%	3%		
13	200	180	35%	10%	14%	19%	0%	0%	0%	0%	0%	5%	6%	0%	11%		
14	200	165	0%	0%	72%	0%	14%	0%	0%	0%	0%	5%	8%	0%	1%		
15	200	100	1%	21%	0%	0%	0%	0%	0%	0%	0%	12%	9%	0%	57%		
16	200	196	12%	0%	75%	0%	0%	0%	0%	0%	0%	12%	9%	0%	1%		
17	200	125	15%	10%	0%	36%	17%	0%	0%	0%	0%	4%	0%	0%	18%		
18	200	177	3%	25%	14%	0%	0%	0%	45%	0%	0%	5%	5%	0%	3%		
19	200	180	35%	10%	14%	19%	0%	0%	0%	0%	0%	5%	6%	0%	11%		
20	200	165	0%	0%	72%	0%	14%	0%	0%	0%	0%	5%	8%	0%	1%		
21	200	100	1%	21%	0%	0%	0%	0%	0%	0%	0%	12%	9%	0%	57%		
22	200	196	12%	0%	75%	0%	0%	0%	0%	0%	0%	12%	0%	0%	1%		
23	200	125	15%	10%	0%	36%	17%	0%	0%	0%	0%	4%	0%	0%	18%		
24	200	177	3%	25%	14%	0%	0%	0%	45%	0%	0%	5%	5%	0%	3%		
25	200	180	35%	10%	14%	19%	0%	0%	0%	0%	0%	5%	6%	0%	11%		
26	200	165	0%	0%	72%	0%	14%	0%	0%	0%	0%	5%	8%	0%	1%		
27	200	100	1%	21%	0%	0%	0%	0%	0%	0%	0%	12%	9%	0%	57%		
28	200	196	12%	0%	75%	0%	0%	0%	0%	0%	0%	12%	0%	0%	1%		
29	200	125	15%	10%	0%	36%	17%	0%	0%	0%	0%	4%	0%	0%	18%		
30	200	177	3%	25%	14%	0%	0%	0%	45%	0%	0%	5%	5%	0%	3%		

581 582 583 584 585 586 587 588 589 590 591 592 593

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Fig. 18a

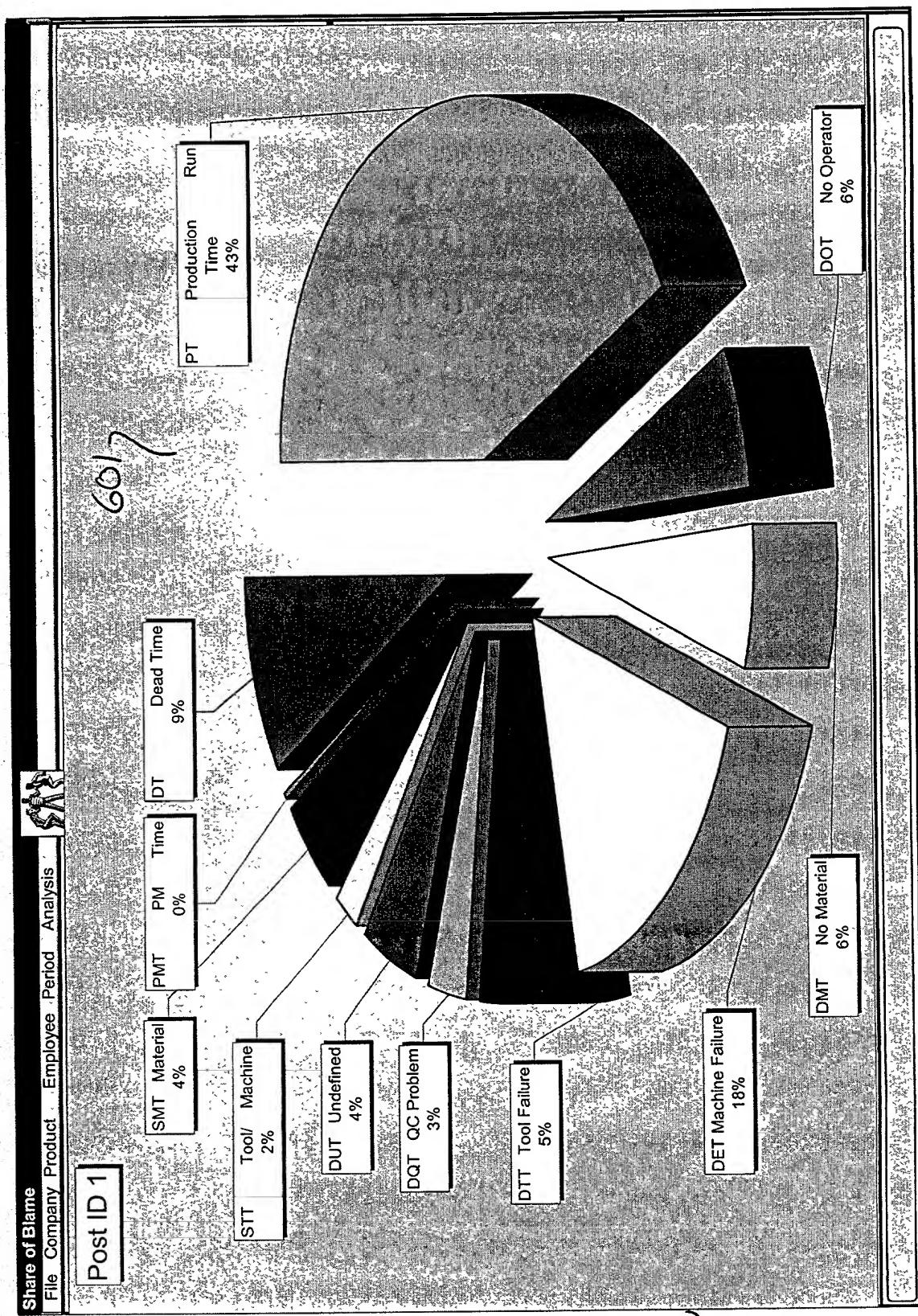


Fig. 18 b

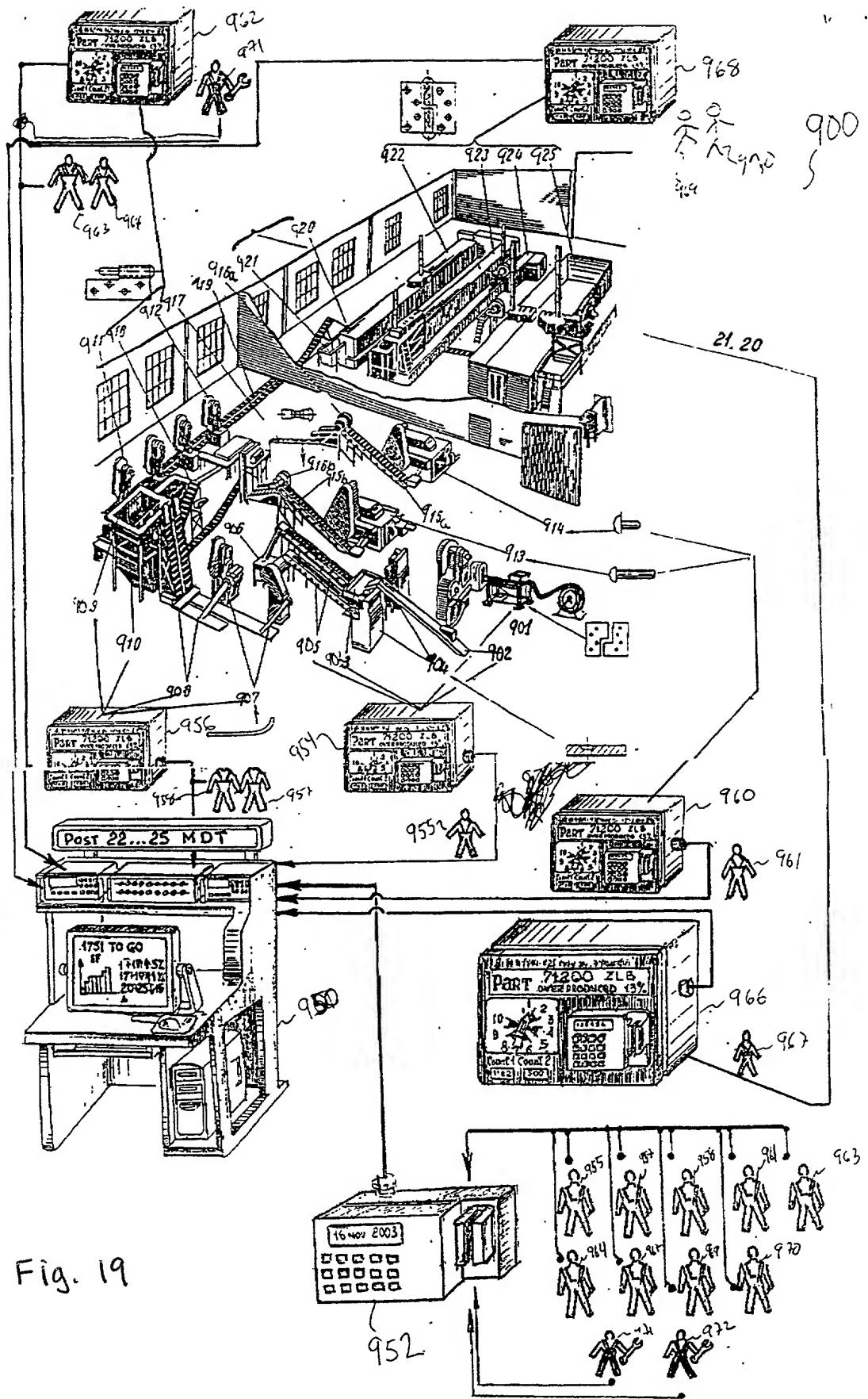


Fig. 19

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Method of Calculating Production Cost and Efficiency

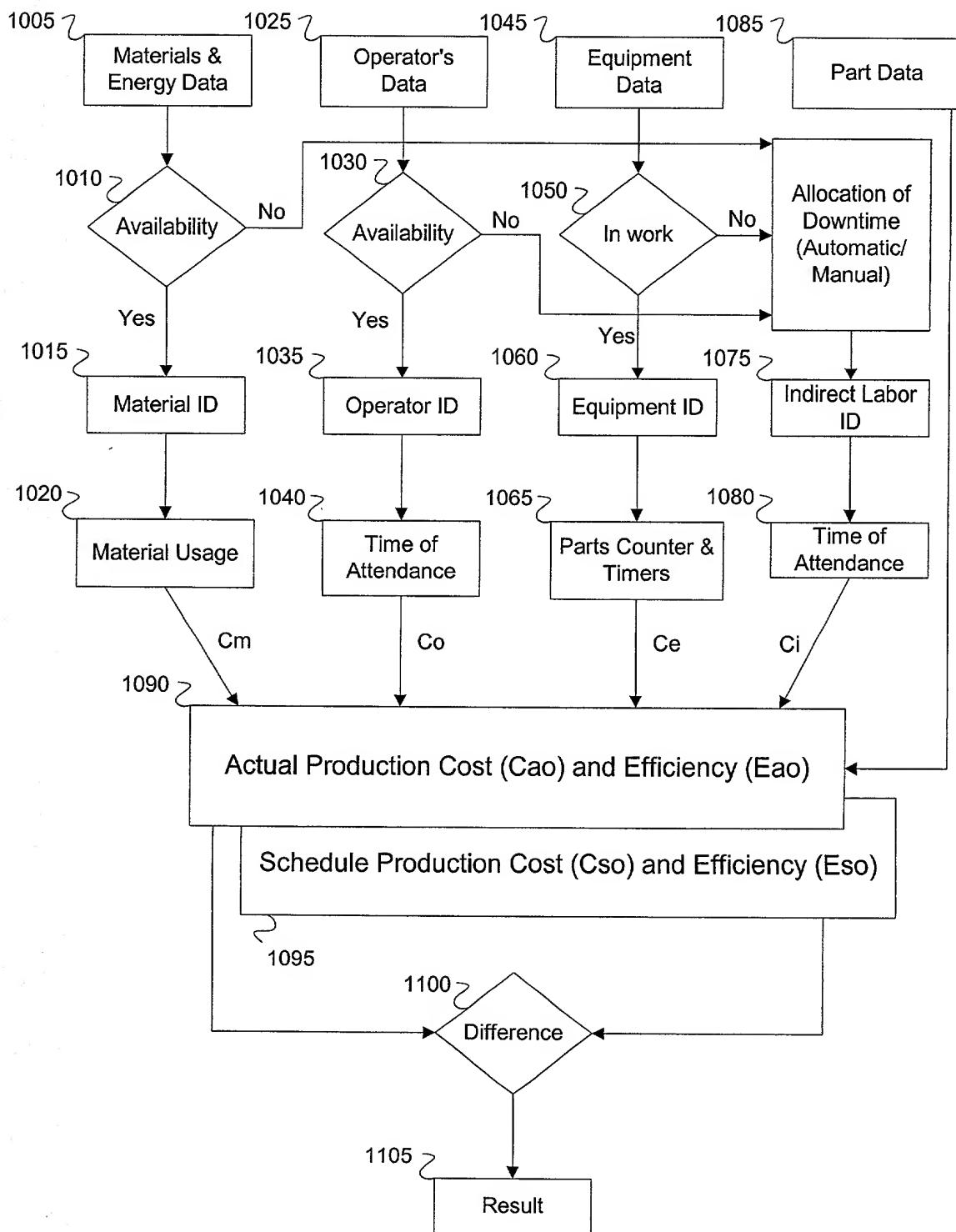


Fig. 20